

## A NEW SPECIES OF PAPUINA WITH NOTES ON *P. TAYLORIANA*

BY W. J. CLENCH AND A. F. ARCHER

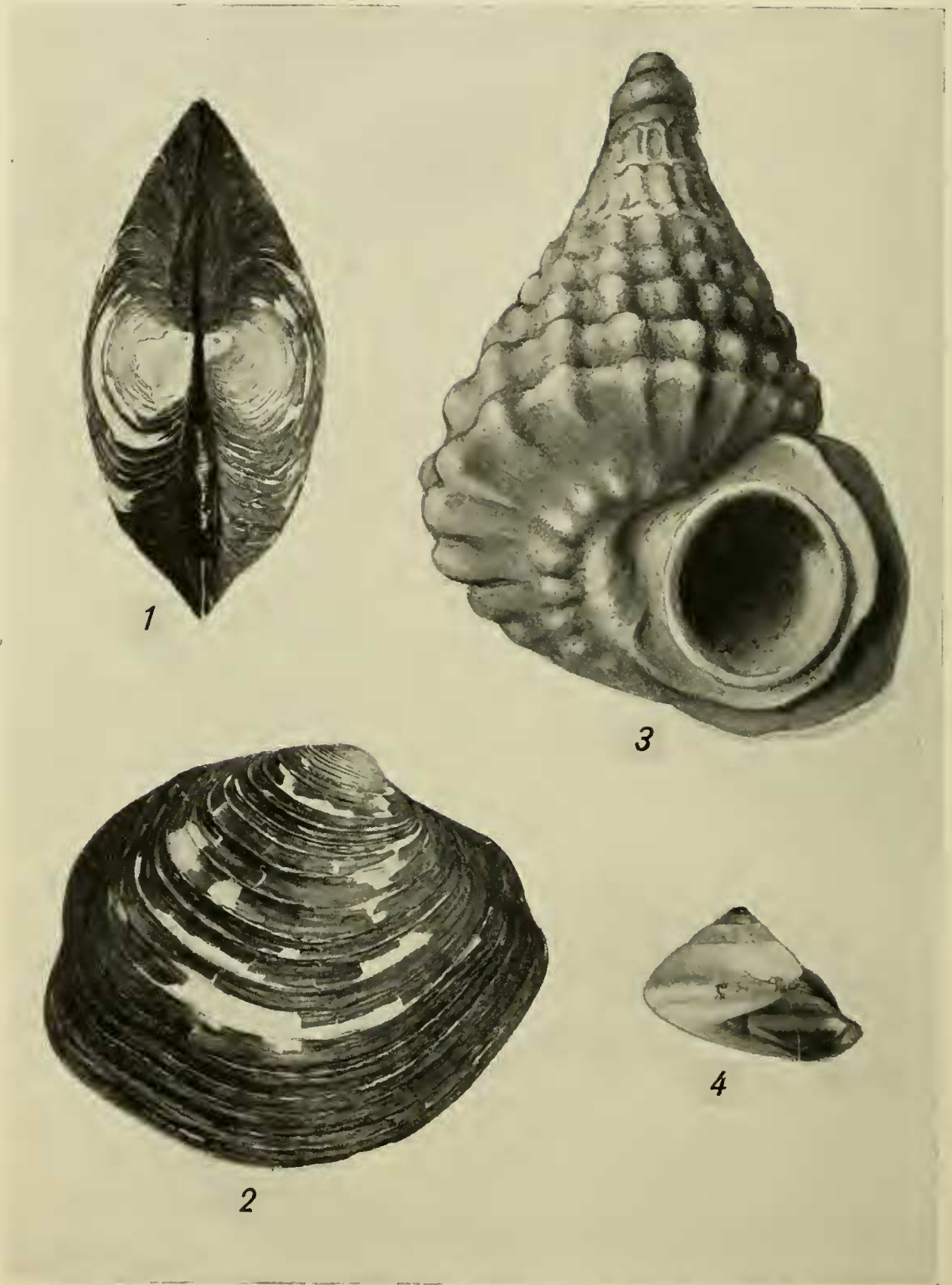
The new species and notes presented here are based upon a large and fine series of *Papuina* recently received from the D'Entrecasteaux and Trobriand Islands off the eastern end of New Guinea.

*PAPUINA WILLIAMSI*, new species. Plate 5, fig. 4.

*Description.*—Shell medium in size, imperforate, thin but strong, translucent and somewhat shining. Whorls 5, slightly depressed and moderately convex, the last definitely angulated. Color: first whorl blackish brown, shading into brown on the first half of the second whorl, this color completely disappearing in the second half of the second whorl, being replaced by the pale ivory ground color of the shell, the last half of the body whorl changing evenly into dull orange or brownish orange. Lip deep pink, the pink coloration carried back for 1 to 2 mm. on the body whorl below the lip. There are a series of faint and rather narrow bands of darker shades of the ivory ground color occurring above and below the periphery. These are best observed in transmitted light. Columella short and straight forming an angle of  $113^\circ$  with the basal area of the lip. Spire forming an angle of about  $90^\circ$ . Aperture oblique and cast at an angle of  $41^\circ$  from the base. Palatal lip slightly flattened, with a pronounced sigmoid curve on the upper portion, the extreme or outer portion forming a slightly flattened point (this is the termination of the whorl angulation). Parietal area faintly glazed, hardly enough to obscure the fine sculpture of the whorl below. Suture indented slightly. Sculpture of fine, oblique, irregular thread-like incised lines, cut at right angles by the fine growth lines. Great diameter, 25.2; lesser diameter, 20.4; height, 15.3 mm.

*Holotype.*—Mus. Comp. Zoöl. no. 110396, Omarakana, central Kiriwina, Trobriand Islands. Rev. H. Williams collector, June, 1935.

*Remarks.*—Only a single specimen of the new form was obtained by Rev. Williams. It is closely related to *P. albocarinata* (Smith) and *P. a. trobriandensis* (Hedley), but differing decidedly in its type of coloration. Both of the above forms are defined by the spiral bands over a pale ivory ground color. The first by only slight shades of difference in the ivory color of these



1, 2, *Lucina* (*Lucinoma*) *atlantis* McLean, p. 87.  
3, *Mecoliotia bermudezi* C. & A., p. 92.  
4, *Papuina williamsi* C. & A., p. 88.

bars, the second replaced by blackish brown color bars. *P. williamsi* is further differentiated by brownish orange wash of color and the pink lip, this being white in *albocarinata* and black in *trobriandensis*.

The presence or absence of the black tip (nuclear whorl coloration) is a character very difficult to understand. Its occurrence in many land snails, that are members of several different families, would point to a rather fundamental element in the color physiology of these animals. Many races or forms of *Liguus* have been established on the presence or absence of spire-tip coloration and certainly in the case of this genus, warrants such taxonomic differentiation. Even in *Papuina* it appears to be capable of segregation, as certain series of *trobriandensis* lack the black tip while other series from different localities possess the black tip along with the white tip form in equal or varying numbers. Only a large series of material from very carefully localized areas will point to its significance as a character for distinguishing races.

#### PAPUINA TAYLORIANA (Adams and Reeve).

*Helix tayloriana* Ad. and Reeve 1848, Voy. Samarang, Moll., p. 59, pl. 15, fig. 2.

Adams and Reeve did not assign a locality in the original description of this species. It very probably occurs only on the mainland of New Guinea, and not on the D'Entrecasteaux Islands, as was later stated by E. A. Smith (Ann. Mag. Nat. Hist. (5), 19, p. 421, pl. 15, fig. 1-1a, 1887). Smith figured two species under *tayloriana*. His figure 1 is typical, and probably a figure of the type. His figure 1a is *P. albocarinata trobriandensis* Hedley, which was quite possibly obtained from Fergusson Island, D'Entrecasteaux group. Smith mentions that all specimens possess a pinkish coloration about the parietal area. A large series of this subspecies from several islands in both the D'Entrecasteaux and Trobriand groups lacks this color character other than those from Fergusson Island. This added coloration is observed on only 2 shells in a series of 38 specimens from this island and may have been brought about by occasional hybridizing with *P. rollsiana* which possesses a large amount of such color and also occurs at this locality. This is purely inference only, as no ad-



ditional morphological characters appear to intergrade between these two forms.

Pilsbry (Man. of Conch. (2), 7, p. 58, pl. 17, fig. 40-41; pl. 2, fig. 20-21 and 27, 1891) gives measurements that agree with *trobriandensis* and not *tayloriana*. The measurements do not agree with the figures of the type which had been copied from the Samarang report.

Specimens before us of *tayloriana* from the Moso River, Humboldt Bay, Dutch New Guinea (near the Dutch-British boundary line on the north coast) measure as follows:

Greater diameter, 30, 31.5; lesser diameter, 24.8, 24.5; height, 16.3, 17.4 mm.

This species differs from *trobriandensis*, not only in its larger size, but also in possessing a definite keel, rather than an angulated periphery, having the body whorl both above and below the keel slightly concave, and having the palatal lip deeply sigmoid.

E. A. Smith (op. cit. p. 422) described *P. albocarinata* from South Cape, British New Guiana. A series of this form was collected by the Rev. Williams at Sinaketa, Kirifina, Trobriand Islands. It is evidently an albino race of the more abundant *trobriandensis*. Spiral blackish brown color bars of *trobriandensis* are replaced by more opaque though yellowish-white spiral bars on *albocarinata*. Both forms occurred at this locality, though elsewhere only *trobriandensis* was collected.

Albinistic forms of known colored species in *Papuina* appear to be rather rare. We possess nothing of this sort in a large series of this genus from the Solomon Islands though it is to be admitted that individual lots from any one locality are small. However, *P. wiegmanni* v. Mts. from Talassea, New Britain in the Bismarck Archipelago does possess an albino race, as a single specimen in a lot of three in our possession is similar in all respects to the typical form other than color, the red spiral bars being replaced by transparent spiral areas. Albinism is a common occurrence in *Liguus*, a genus of highly colored tree snails of Florida and certain West Indian Islands, though it is not particularly common in other terrestrial snails, as far as we are aware.

As Smith's *albocarinata* was first described it must become the specific name, the more abundant and probably more widespread *trobriandensis* becoming its subspecies, our canons of nomencla-

ture not allowing a shift of names to express natural relationships. The following are the localities from which we have these forms.

PAPUINA ALBOCARINATA (E. A. Smith). *Helix (Papuina) albocarinata* Smith 1887, Ann. Mag. Nat. Hist. (5), 19, p. 422, pl. 15, fig. 12 (South Cape, British New Guinea).

Sinaketa, southern Kiriwina Island, Trobriand Islands.

PAPUINA ALBOCARINATA TROBRIANDENSIS (Hedley). *Geotrochus trobriandensis* Hedley 1891, Proc. Linn. Soc. New South Wales, 6, p. 92, pl. 11, fig. 28 (Trobriand Islands).

Sinaketa, southern Kiriwina Island, Trobriand Islands; Omarakana, central Kiriwina Island, Trobriand Islands; 3 miles above Losuia, northern Kiriwina Island, Trobriand Islands; Kaileuna Island, Trobriand Islands; Seymour Bay, Fergusson Island, D'Entrecasteaux Islands.

This same sending included a large series of *Papuina rollsiana* Smith from Seymour Bay, Fergusson Island, D'Entrecasteaux Islands. Smith (loc. cit. p. 423) gave South Cape, British New Guinea as the type locality. This locality is open to question for both this species and *Papuina albocarinata*.

The following measurements are based upon a selected series of *P. rollsiana* to show a size range from this locality.

Greater diameter, 25.5, 28, 32.2, 35; lesser diameter, 19.5, 21, 23.4, 25.5; height, 18.4, 15.5, 19, 22 mm.

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## A NEW PLEISTOCENE MECOLIOTIA FROM CUBA

BY W. J. CLENCH AND C. G. AGUAYO

Dr. P. Bermudez has very kindly turned over to us a series of fossil shells collected by him in the Pleistocene formation of Matanzas,  $\frac{1}{2}$  km. south of the mouth of the Rio Canimar. Late Tertiary and Pleistocene formations in Cuba have been little studied from the conchological standpoint. We quote the following note from Dr. Bermudez who has specialized on micropaleontology: "The Yumuri river marl (Cushman 1919, Carnegie Institution, publication 291, p. 29) collected by T. W. Vaughan seems to have the same fauna found at the Rio Canimar. Cushman states that the Yumuri fauna belongs to the Miocene, but